

(12) INTERNATIONAL APPLICATION PUBLISHED  
IN ACCORDANCE WITH THE PATENT CO-OPERATION TREATY (PCT)

(19) World Intellectual Property Organization



(43) International publication date

14 October 2004

PCT

(10) International publication number:

WO 2004/086978 A1

(51) International patent classification<sup>7</sup>: A61B 10/00

(21) International file number: PCT/EP2004/003328

(22) Date of International Application: 29 March 2004

(25) Language of filing: German

(26) Language of publication: German

(30) Priority information:  
103 14 240.1 29 March 2003 DE

(71) Applicant (for all designated contracting states except the US):  
BARD DUBLIN ITC LIMITED [GB/GB]; Forest House, Brighton  
Road, Crawley, West Sussex RH11 9BP (GB).

(72) Inventor: and

(75) Inventor/Applicant (only for US): HESKE, Norbert, F.

[DE/DE]; Dorfstrasse 22 a, 82288 Kottgeisering (DE), HESKE,  
Thomas [DE/DE]; Kirchstrasse 43, 82284 Grafrath (DE).

(74) Attorney: TOMLINSON, Edward; Frohwitter,  
Possartstrasse 20, 81679 Munich (DE).

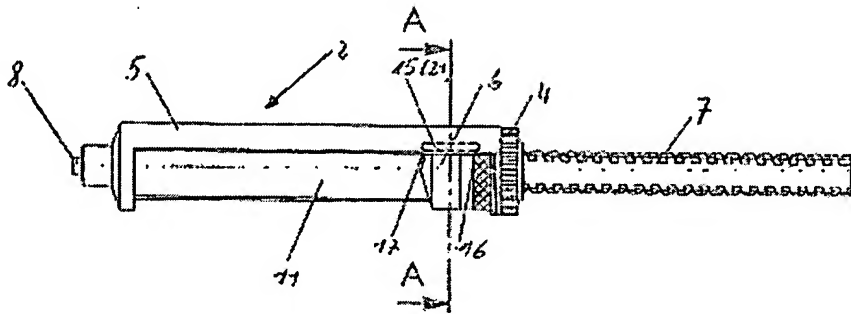
(81) Designated contracting states (unless otherwise stated, for  
each available type of national protective right): AE, AG, AL,  
AM, AT, AU, AZ, BA, BB, BG, BW, BY, BZ, CA, CH, CN, CO,  
CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,  
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,  
NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,  
SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,  
YU, ZA, ZM, ZW.

(84) Designated Contracting States (unless otherwise stated, for  
each available type of regional protective right): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: PRESSURE GENERATING UNIT

(54) Bezeichnung: DRUCKERZEUGUNGSEINHEIT



(57) Abstract: The invention relates to pressure generating units, in particular to pressure generating unit arranged in the hand piece of a vacuum biopsy device in the form of a syringe (2). In said units, air intake is open by a piston when said piston (5) is in the rear position thereof in the space of a vacuumed cylinder (11) which is switched for generating a superpressure, thereby initiating the outflow of a tissue liquid by the air introduced into the space of the vacuumed cylinder. For this purpose, the space of the vacuumed cylinder is connected to the space of an atmosphere pressure cylinder (12) arranged behind the piston, by means of a connection line (15), and an absorbing element (14) is placed on the piston axis.

(57) Zusammenfassung: Bei Druckerzeugungseinheiten, insbesondere Druckerzeugungseinheiten, die im Handsstück einer Vakuum-Biopsievorrichtung angeordnet sind und die in Art einer Spritze (2) ausgebildet sind, wobei durch Zurückziehen des Kolbens (5) im evakuierten Zylinderraum (11) bei der Umstellung auf die Erzeugung von Überdruck die Luftzufuhr durch die Position des Kolbens freigegeben wird, dringt bei der Belüftung des evakuierten Zylinderraums Gewebeflüssigkeit nach aussen. Es wird daher vorgeschlagen, den evakuierten Zylinderraum über eine Verbindungsleitung (15) mit dem unter Atmosphärendruck stehenden Zylinderraum (12) hinter dem Kolben zu verbinden und auf der Kolbenspinde ein saugfähiges Fliess (14) anzuordnen.

WO 2004/086978 A1



Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published**

*– With international search report*

*– Prior to expiration of the period for modifications to claims; will be re-published if changes are made.*

*See explanations (in "Guidance Notes on Codes and Abbreviations") at the beginning of each regular edition of the PCT Gazette for explanation of the country digraphs and other abbreviations.*